

Abstract of the Invention

A system and method is provided to facilitate communications between object systems. A caller is provided having optimized in-lined functionality when initiating a remote function call between managed and unmanaged object systems, for example. The in-lined functionality includes utilizing direct calls and returns within a calling function. In this manner, pushing additional arguments onto an execution stack because of an external stub reference is mitigated. In addition, one or more code loops can be analyzed to enable stack markers to be "hoisted" and thus pushed a single time instead of each time the calling function executes. Other aspects of the optimized caller provide garbage collection and thread management, security attribute checking on outgoing calls, calling convention considerations, wherein arguments and return values are organized according to the convention utilized by the remote object system, and in-lined marshalling to provide enhanced performance over external stub code references. Code extensibility options can be included enabling functions to be generalized thereby insulating object systems from implementation details of the called functions.